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REMARKS

Claims 1, 3 to 9, 11 to 23, and 25 to 27 are pending in this application and are the subject of the following rejections. Claim 1 has been amended. Claims 2 and 10 have been deleted without prejudice and their limitations were incorporated into claim 1. Claims 11 to 15 have been amended merely to reflect the incorporation of claim 2's limitations (on which these claims were dependent) into claim 1, for reasons not related to patentability. Claim 3 has been amended for reasons not related to patentability, and claim 27 has been added, and does not include any new matter. Applicant traverses each rejection for at least the following reasons.

35 U.S.C. §112, second paragraph

Claims 1-23 and 26 were rejected by the Examiner "as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention." Applicant traverses this rejection for at least the reasons set forth below and in the response filed October 29, 2002.

The Examiner has inquired as to the meaning of "long chain." Applicant believes that this rejection refers to claim 1, "long chain acyl derivatives" and "esters of long chain of fatty acids." As stated in the specification on page 16, "long chain" refers to chains of at least 16 carbons. Therefore, the term "long chain" is defined and this rejection is overcome.

The Examiner stated that "[there] is no spinosap [sic], spinosyn A, spinosyn D, or any component produced by *S. spinosa*... in claim 1 [and] therefore, claim 3 has no antecedent basis." Applicant notes that the chemical structure in claim 1 covers the chemical structure of spinosad, spinosyn A, spinosyn D and components produced by *S. spinosa* (see page 3, "the chemical structure of spinosyns has the general formula of [the same structure as in claim 1].")

Therefore, claim 1 encompasses agents including spinosad, spinosyn A, spinosyn D and components produced by *S. spinosa* have this chemical structure. Further, claim 3 claims "the agents" which has antecedent basis in "agent" in claim 1.

The Examiner notes that "'R' is not an action this examiner is familiar with. There is no antecedent in claim 1 for claims 4, 5, 6, [and] 7." Applicant respectfully directs the Examiner's attention to "R" in claim 1, in the bottom middle of the chemical structure. See Exhibit A, where the structure in claim 1 is reproduced and R is circled. One of ordinary skill in the art would understand "R" to be a symbol for any organic substituent that may be placed at that bond. "R" is defined in the art as a "symbol used to represent an organic group in a chemical formula." See Exhibit B, Hawley's Condensed Chemical Dictionary, Twelfth Edition, p. 989 (1993) and Exhibit C, Hackh's Chemical Dictionary, Fourth Edition, p. 567 (1969). Therefore, "R" is known, understood and provides an antecedent basis and claims 4-7 have antecedent basis in claim 1.

The Examiner requests that applicant "drops[sic] the 'any component-', as that language would not seen[sic] to constitute any structural form within the confines of the claimed structure as drawn. 'Any component', would constitute a patentably distinct species separate trans the identified structure." Applicant is unsure of the meaning of this. The Examiner has not offered prima facie evidence of "any component produced by *S. spinosa*" being patentably distinct. Therefore, this rejection should be removed.

The Examiner notes that "in claim 26, no ranges are given/trace amounts of everything, in any vehicle, for any purpose, would be permissible, and is not definitively claiming the instant invention." Applicant traverses this, and notes that ranges are not required to definitely claim the invention. Applicant is not required to describe all actual embodiments. *SRI Int'l v. Matsuhita*,

775 F.2d 1107 (Fed. Cir. 1985). If the Examiner believes that one of ordinary skill in the art wouldn't understand the claimed invention and would not be familiar with amounts of compounds that function as called for by the claim, Applicant requests that the Examiner cite evidence in support of this position or provide an affidavit based upon his personal knowledge. 37 C.F.R. § 1.104(c)(2) and (d)(2).

Therefore, Applicant asserts that the rejections based on 35 U.S.C. 112, second paragraph have been overcome.

35 U.S.C. §112, first paragraph

The Examiner rejected claims 1-23 under 35 U.S.C. § 112, first paragraph, as not being enabled (specifically referring to "any component"). Applicant notes that "any component" has been deleted from claim 3 and set forth in a separate new claim 27. Therefore, Applicant believes this rejection is only relevant to new claim 27. The arguments from the October 29, 2002 response are reasserted and Applicant notes that in order to satisfy the enablement requirement, Applicant need not describe all actual embodiments. *SRI Int'l v. Matsuhita*, 775 F.2d 1107 (Fed. Cir. 1985). Not reciting every operable species of the invention does not offend § 112, even assuming *arguendo* that the invention relates to an unpredictable art. *In re Vaack*, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). While Applicant has found novel improvements in this art, the art is sufficiently predictable in respect to components produced by *S. spinosa* that a skilled artisan would not need undue experimentation to ascertain the components in this invention. If the Examiner believes that one of ordinary skill in the art wouldn't understand the claim limitation and would not be familiar with specific compounds that function as called for by the limitation, Applicant requests that the Examiner cite evidence in support of this position or

provide an affidavit based upon his personal knowledge. 37 C.F.R. § 1.104(c)(2) and (d)(2).

Applicant respectfully asserts that this rejection has been overcome.

35 U.S.C. § 102

Snyder

Claims 1-10 and 12-23 were rejected under 35 U.S.C. § 102(e) as being anticipated by Snyder 6063771 ("771 Patent"). Applicant traverses this rejection. Claim 1 has been amended to include the limitation "said solution comprising water and one or more stabilizers, wherein the stabilizers comprise one or more of the group consisting of polyvinyl methyl ether/maleic anhydride Decadiene crosspolymers, acrylates/aminoacrylates C10-30 Alkyl PEG-20 Itaconate copolymer, long chain acyl derivatives, alkanolamides, esters of long chain of fatty acids, alkyl dimethylamine oxides, methylcellulose, hydroxybutyl methylcellulose, hydroxypropylcellulose, hydroxypropyl methylcellulose, hydroxethyl cellulose, distearyl phthalic amide, di(hydrogenated) tallow phthalic amide, primary amines with a fatty alkyl moiety of at least 16 carbons, polyacrylic acids, polysaccharide gums, and colloidal silica."

Applicant does not concede to the Examiner's arguments and further notes that in the July 29, 2002 office action, the Examiner noted that the '771 patent "does not specify each component at the instantly claimed %." Since the Examiner admits the '771 patent does not teach all of the claim limitations, the '771 patent cannot anticipate and this rejection should be removed.

Boeck

The Examiner rejected claims 1-9 and 12 under 35 U.S.C. 102(e) as being anticipated by Boeck EP 0375316 ("EP Patent"). Applicant traverses this rejection. The EP Patent fails to teach or suggest the inclusion of one or more stabilizers as recited by amended claim 1. Further, Applicant's claims are directed to "solution comprising water" (see e.g. claim 1). The EP Patent

teaches only non-aqueous compositions (EP Patent, page 17, lines 36-37). Therefore, Applicant respectfully asserts that this rejection has been overcome.

Kassebaum

The Examiner rejected claims 1-7, 9, 12-15, and 22 under 35 U.S.C. 102(e) as being anticipated by Kassebaum WO 01/12156 ("Kassebaum Application"). Applicant notes that the Kassebaum Application does not teach every limitation of the rejected claims as amended. Kassebaum does not teach aqueous compositions, and each of Applicant's claims are limited to a "solution comprising water...." Therefore, Kassebaum does not anticipate every limitation of the pending claims and Applicant respectfully asserts that this rejection is overcome.

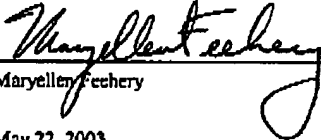
CONCLUSION

Applicant believes that there are no outstanding rejections and respectfully asserts that the application is in condition for allowance. Reconsideration and the early issuance of a Notice of Allowance are requested. If the Examiner has any outstanding issues, the courtesy of a phonecall is requested.

Authorization of Deposit Account

The Commissioner is hereby authorized to charge any fees or credit any overpayment, to Deposit Account 18-0586. This authorization also hereby includes a request for any extensions of time of the appropriate length required upon the filing of any reply during the entire prosecution of this application.

I hereby certify that this paper and the papers referred to herein as being transmitted, submitted, or enclosed herewith for application Serial No. 09/841,715 is/are being facsimile transmitted to the United States Patent and Trademark Office fax number 703 872 9306 on the date shown below.

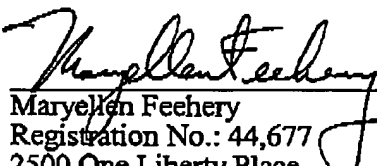

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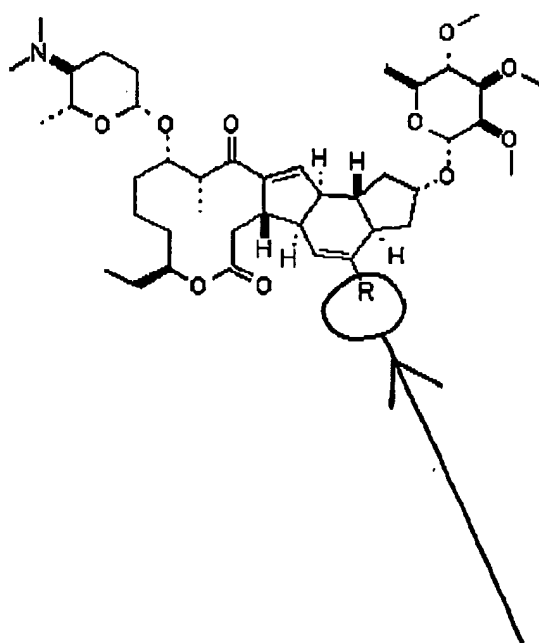
Respectfully submitted,

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Exhibit A



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Exhibit B

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Hawley's
Condensed Chemical
Dictionary

TWELFTH EDITION

Revised by
Richard J. Lewis, Sr.



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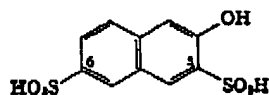
CIP

R

R. (1) Symbol used to represent an organic group in a chemical formula, e.g., CH_3 , C_2H_5 , C_6H_5 , etc. (2) A free radical (with superior dot, R^\cdot). (3) The gas constant, equal to $p_0 v_0 / 273^\circ\text{C}$. (4) Abbreviation of Rankine temperature scale.

Ra. Symbol for radium.

R acid. (2-naphthol-3,6-disulfonic acid; β -naphtholdisulfonic acid).



Properties: Deliquescent, colorless needles; soluble in water, alcohol, and ether.

Derivation: Sulfonation of β -naphthol. For details see Schaeffer acid.

Use: Azo-dye intermediate. The disodium salt is used as a reagent in detection of nitrogen dioxide in the air.

2R acid. See RR acid.

racemate. (1) The mixture of two optically active components that neutralize the optical effect of each other. (2) The salt of a racemic acid.

racemic substance. A mixture of dextro- and levorotatory optically active isomers in equal amounts, the resulting mixture having no rotary power. These mixtures are prefixed *l* or *dl*. See also *dl*.

racemization. Conversion, by heat or by chemical reaction (e.g., enolization) of an optically active compound into an optically inactive form, in which half of the optically active substance becomes its mirror-image (enantiomer). This change results in a mixture of equal quantities of dextro- and levorotatory isomers, as a result of which the compound does not rotate plane-polarized light to either right or left because the two opposite rotations cancel each other. This is sometimes referred to as external compensation, as opposed to the internal compensation exhibited by meso-compounds.

See also meso-(1), tartaric acid.

racephedrine. (racemic ephedrine; *dl*-ephedrine). $\text{C}_{10}\text{H}_{15}\text{NO}$.

Properties: Crystals; mp 79°C ; soluble in water, alcohol, chloroform, and oils.

Derivation: Synthetic.

Use: Medicine (also as hydrochloride and sulfate).

See ephedrine for optically active form.

racking. Experimental cold-stretching of unvulcanized rubber, whose behavior under stress is unique among natural materials. A thin, narrow strip stretched, e.g., 500–600% at 0°C will retain that extension indefinitely after release of stress as long as the low temperature persists. In this state, it loses its elasticity and has virtually 100% permanent set. It also displays a crystalline x-ray pattern similar to that of a fiber, in contrast to the amorphous structure of the unstretched state. On exposure to room temperature, it slowly retracts to its original length; higher temperature increases its rate of recovery. Tests made on racked rubber have shown that crude rubber can be exposed to any degree of low temperature for any length of time without impairment of its properties.

rad. That quantity of ionizing radiation that results in the absorption of 100 ergs of energy per gram of irradiated material, regardless of the source of the radiation. The federal radiation safety standard is 0.5 rem per person per year for non-occupational exposure, and even this is considered too high by some authorities. Occupational exposure is set at 5 rem per year. See also rem.

"Radol" [Union Carbide]. TM for a water-soluble polyethylene oxide film.

Use: Packaging powdered detergents, dyes, insecticides, fungicides, and other household, industrial, and agricultural products that are dissolved in water prior to use.

radiation. Energy in the form of electromagnetic waves (also called radiant energy, or light). It is emitted from matter in the form of photons (quanta), each having an associated electromagnetic wave having frequency (ν) and wavelength (λ). The various forms of radiant energy are characterized by their wavelength, and together they comprise the electromagnetic spectrum, the components of which are as follows: (1) cosmic rays (highest energy, shortest wavelength), (2) γ -rays from radioactive disintegration of atomic nuclei, (3) x-rays, (4) UV rays, (5) visible light rays, (6) infrared, (7) microwave, and (8) radio (Hertzian) and electric rays. All these are identical in every way except wavelength, those having

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Exhibit C

HACKH'S CHEMICAL DICTIONARY

[American and British Usage]

*Containing the Words Generally Used in Chemistry,
and Many of the Terms Used in the Related
Sciences of Physics, Astrophysics, Mineralogy,
Pharmacy, Agriculture, Biology,
Medicine, Engineering, etc.*

Based on Recent Chemical Literature

FOURTH EDITION

Completely Revised and Edited by

JULIUS GRANT

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HACKH'S CHEMICAL DICTIONARY

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R

- R.** Symbol for organic radical, as R' monovalent, R'' divalent, etc. **R.** (1) Réaumur degrees. (2) Rankine degrees. **R acid.** 3-Naphthol-3,6-disulfonic acid. **RR acid.** 2-Amino-8-naphthol-3,6-disulfonic acid. **R salt.** Sodium salt of R acid.
- R.** Symbol for the gas constant: $R = 82.07 \text{ (cm}^3\text{)·(atm)/deg} = 1.9885 \text{ cal/dog} = 8.316 \text{ joules/dog}$.
- r.** Abbreviation for roentgen. **R_x, rH.** Symbol for oxidation-reduction potential, q.v.
- r.** Symbol for: (1) *raemia*, (2) *radius*.
- ρ.** Greek letter rho. Symbol for: (1) the mathematical constant 0.47093 62762; (2) the *para*- or 2,8-position of naphthalene; (3) ρ , the absolute unit of viscosity.
- Ra.** Symbol for radium.
- ra.** Abbreviation for radioactive; as $raCl$, radiochlorine.
- rabble.** An iron stirrer for molten metal; as, *rabbling* a charge of ore in a reverberatory furnace.
- rabalaisin.** A poisonous glucoside from *Rabalaisia philippinensis* (Philippines); a local arrow poison.
- rac.** Radiocarbon.
- RaC.** Radium C.
- racahout.** Meal prepared from the edible acorn; used, with sugar and flavoring, as an invalid food.
- racamate.** A salt of a racemic acid; generally of *r*-tartaric acid.
- racemization.** Racemization.
- raceme.** A racemic compound.
- racemic, r- or dl-.** Inactive, but separable into dextro- and levorotatory compounds. **r. acid.** (1) $\text{HOOC·CHOH·CHOH·COOH} = 150.05$. Paratartaric acid. An optically inactive isomer of tartaric acid with which it occurs in nature. Colorless crystals, m. 205, soluble in water. Cf. *meso-tartaric acid*. (2) An optically inactive equimolecular mixture of *d* and *l* acids. **r. compound.** A crystal that consists of an equal number of optically active *d* and *l* molecules, but can be separated into its active constituents. Cf. *meso form*. **r. mixture.** An optically inactive mixture of equal quantities of a *d* and *l* compound.
- racemization.** Racemization, racemisation. The transformation of optically active substances into optically inactive substances or mixtures. **auto-spontaneous r.** **partial-R.** that affects only a few asymmetric groups.
- racephedrine.** Racemic ophedrine. **r. hydrochloride.** Ephedrin.
- racetrack.** An explosive that is made, as required, from a mixture of potassium chlorate and nitrobenzene, sometimes with picric acid.
- racking.** (1) Separation of ores by washing on an inclined plane (rack). (2) The final stage in brewing, when the liquor is clarified. (3) The almost complete separation of solid glycerides from cod-liver oil on cooling.
- raCl.** Radiochlorine.
- rad.** The unit dose of absorbed radiation: an energy absorption of 100 ergs per gram of tissue. Cf. *rem-roentgen, curie*.
- radar.** Radiolocation. The location of an object by means of the radiation reflected from it. Thus a vessel emitting radio waves can produce the image of an otherwise invisible object on a screen sensitized to the reflected waves.
- raddle.** Atomatite.
- radian.** **rad.** (1) An arc of a circle that is as long as the radius. (2) The angle subtended at the center by the arc of a circle equal to the radius: $180^\circ/\pi = 57.39578^\circ = 1 \text{ radian}$; $1^\circ = 0.017453 \text{ radian}$. The SI unit for plane angles.
- radiant.** Diverging from a common center in all directions. **r. energy.** A dynamic disturbance of the ether that diverges from a common center and manifests itself as heat, light, or electricity. **r. flux.** See *flux*. **r. heat.** Heat waves. **r. matter.** (1) The residual gas in a luminous vacuum tube. (2) Radioactive matter. **r. state.** (1) The condition of emitting light; as, incandescence, luminescence, fluorescence. (2) Crooks's fourth state of matter.
- radiated.** Describing a rosette-shaped arrangement of crystals. **r. pyrite.** Marcasite.
- radiation.** (1) Transmission of energy through space, unassociated with motion of material particles, and without loss or change; *electromagnetic r.* accounts for interference, diffraction, refraction, and polarization. (2) Emission of material particles moving at high velocity; *corpuscular r.* accounts for the photoelectric and Compton effects. (3) Sometimes, transfer or diffusion of energy through matter, as heat waves. Cf. *ray, irradiation*. **corpuscular-** A stream of particles; as, α rays, positively charged atomic nuclei; or β rays or cathode rays, negatively charged particles or electrons moving with the velocity of light. **cosmic-** A penetrating *r.* of very short wavelength from all directions of space, day and night. Its origin is probably the interstellar or intergalactic space, and it transforms matter into energy. **electromagnetic-** An electric field E oscillating at right angles to the direction of propagation, accompanied by a similar magnetic field H at right angles to the direction of both. See *Planck's constant*. **immaterial-** The vibratory disturbance of a medium; as, sound waves in air. **infraphotic-** See *electromagnetic*. **K-, L-, M-** See under *K, L, M, etc. material-* **Corpuscular-** **mechanical-** Those material radiations which cause a vibration of molecules; as, heat waves. **monochromatic-** A single colored *r.*, which consists of waves of equal or approximately equal wavelength. **permissible-** The maximum dose of *r.* regarded as safe for factory workers in proximity to X rays, γ rays, β rays, electrons, or positrons; i.e., 20 rads in air at or near the hands, forearms, foot, and